



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,491	08/15/2000	Michael Feldman	N298.12-0001	1274
164	7590	06/07/2006	EXAMINER	
KINNEY & LANGE, P.A. THE KINNEY & LANGE BUILDING 312 SOUTH THIRD STREET MINNEAPOLIS, MN 55415-1002			INGBERG, TODD D	
			ART UNIT	PAPER NUMBER
			2193	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/638,491	FELDMAN, MICHAEL	
	Examiner	Art Unit	
	Todd Ingberg	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-34 and 36-55 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-34 and 36-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 28 – 34 and 36 – 55 have been examined.

Claims 1-27 and 35 have been canceled.

Drawings

1. New drawings filed March 24, 2006 have been entered.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 28 – 34 and 36 – 55 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, the final result of the claim is instances of components which is not a tangible result because the instances are not explicitly stored on a computer readable medium. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Art Unit: 2193

28. (Currently Amended) An architecture for developing a distributed information system, the architecture comprising:

- a component development tool for generating a plurality of autonomous and compiled components that implement and consume services, the components capable of operating in an edit mode and a run mode;
- a system development tool for defining and hosting a plurality of component instances based on the plurality of components, configuring the plurality of component instances, and defining links between component instances, without requiring writing of code, wherein the component instances are capable of operating in the edit mode while hosted by the stem development tool; and
- an engine software program to provide a dynamic run-time environment for hosting the plurality of component instances and supporting communication between component instances based upon the defined links, wherein the component instances are capable of operating in the run mode while hosted the engine software program.

Examiner's Remarks

Current focus of 101 is for the applicant to make the result(s) tangibly embodied on a computer readable medium. Merely executing on a computer is not tangible under the current guidelines.

Allowable Subject Matter

3. Applicant's arguments over prior art are found to be persuasive. The current status of the claims are presented below. They have been scanned and OCR errors may exist.

28. (Currently Amended) An architecture for developing a distributed information system, the architecture comprising:

- a component development tool for generating a plurality of autonomous and compiled components that implement and consume services, the components capable of operating in an edit mode and a run mode;
- a system development tool for defining and hosting a plurality of component instances based on the plurality of components, configuring the plurality of component instances, and defining links between component instances, without requiring writing of code, wherein the component instances are capable of operating in the edit mode while hosted by the stem development tool; and
- an engine software program to provide a dynamic run-time environment for hosting the plurality of component instances and supporting communication between

Art Unit: 2193

component instances based upon the defined links, wherein the component instances are capable of operating in the run mode while hosted by the engine software programs.

29. (Previously Presented) The architecture of claim 28, further comprising: a service definition tool for generating service protocols that are implemented by components, the service protocols defining a format of messages to be sent between ports of component instances; and wherein links defined between component instances are defined between the ports of component instances.

30. (Previously Presented) The architecture of claim 28, wherein the component development tool provides the capability of representing components as a first and a second plurality of components, each component in the first plurality of components representing a physical entity in the distributed information system, and each component in the second plurality of components representing a logical entity in the distributed information system.

31. (Previously Presented) The architecture of claim 29, wherein each of the ports comprises either a service provider port or a service consumer port.

32. (Previously Presented) The architecture of claim 31, wherein service provider ports and service consumer ports based on the same service protocol are complementary.

33. (Previously Presented) The architecture of claim 32, wherein the system development tool only allows links to be defined between service provider ports and complementary service consumer ports.

34. (Previously Presented) The architecture of claim 28, wherein each of the plurality of component instances is self-sufficient.

36. (Previously Presented) The architecture of claim 33, wherein a component instance includes at least one service provider port that allows multiple simultaneous links with complementary service consumer ports.

37. (Previously Presented) The architecture of claim 33, wherein component instances are executed concurrently, and wherein the communications between service provider ports and complementary service consumer ports are asynchronous.

38. (Previously Presented) The architecture of claim 28, wherein the engine software program runs on each of a plurality of networked nodes.

39. (Previously Presented) The architecture of claim 38, wherein the system development tool represents the distributed information system as a single entity, regardless of physical node and network composition into which the component instances will be deployed.

Art Unit: 2193

40. (Previously Presented) The architecture of claim 38, wherein the system development tool deploys each component instance to one of the plurality of networked nodes.

41. (Previously Presented) The architecture of claim 38, and further comprising a local repository on each of the plurality of nodes, the local repository on each node storing data defining the component instances deployed to and hosted by that node and storing link: data for the component instances deployed to and hosted by that node.

42. (Previously Presented) The architecture of claim 39, wherein the system development tool allows changes to be made to the component instances deployed to and hosted by the plurality of networked nodes and allows changes to be made to links between the component instances deployed to and hosted by the plurality of networked nodes.

43. (Previously Presented) The architecture of claim 42, wherein the system development tool allows changes to be made to the component instances and allows changes to be made to links between the component instances, without requiring writing of additional code, wherein the system development tool allows the changes to be made while the distributed information system is running.

44. (Previously Presented) The architecture of claim 43, wherein the system development tool allows deletion of the component instances deployed to and hosted by the plurality of networked nodes and allows deletion of communication links between the component instances deployed to and hosted by the plurality of networked nodes, wherein the system development tool allows the deletions to occur while the distributed information system is running.

45. (Previously Presented) The architecture of claim 29, and further comprising a central system repository for storing the components, the component instances, link data, infrastructure configuration and configuration data for the service protocols.

46. (Previously Presented) The architecture of claim 28, wherein at least one of the component instances supports continuous activities internally.

47. (Previously Presented) The architecture of claim 28, wherein each of the component instances is configurable to participate in activities that are collectively performed by multiple component instances.

48. (Previously Presented) The architecture of claim 28, wherein the only dependencies between component instances that are linked to each other are logical dependencies implemented using the component development tool.

49. (Currently Amended) An architecture for developing a distributed information system, the architecture comprising: a component development tool for generating autonomous and compiled components that implement and consume services, the components capable of operating in an edit mode and a run mode; a system development tool for defining and hosting a

Art Unit: 2193

plurality of component instances based on the plurality of components, configuring the plurality of component instances, and defining links between component instances, wherein the component instances are capable of operating in the edit mode while hosted by the system development tool; and an engine software program to provide a programmable run-time environment for hosting the plurality of component instances and implementing the links to provide bidirectional communication paths between the plurality of component instances, wherein the component instances are capable of operating in the run mode while hosted by the engine software program.

50. (Previously Presented) The architecture of claim 49, further comprising a service definition tool for generating service protocols which define a format of messages to be sent through a plurality of ports, each port being associated with a component instance.

51. (Previously Presented) The architecture of claim 49, wherein the engine software program provides the bi-directional communication paths between linked ports.

52. (Previously Presented) The architecture of claim 49, further comprising a plurality of networked nodes running the engine software program, wherein the engine software dynamically manages ports and links for the component instances across the plurality of networked nodes.

53. (Previously Presented) The architecture of claim 49, wherein the component development tool is designed to be operated by a person skilled in computer programming.

54. (Previously Presented) The architecture of claim 49, wherein the system development tool is designed to be operated by a person without skill in the art of computer programming.

55. (Previously Presented) The architecture of claim 49, wherein any component instance having a consumer port that complies with a first service protocol may be configured to communicate with any component instance having a provider port that also complies with the first service protocol.

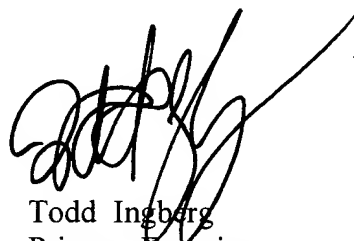
Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2193

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Todd Ingberg
Primary Examiner
Art Unit 2193

TI